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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,273	10/18/2000	Robert Anthony Marin	TK-3410-US-NA	4960

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EXAMINER

SALVATORE, LYNDA

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/691,273

Applicant(s)

MARIN ET AL.

Examiner

Lynda M Salvatore

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☒ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. Applicant's amendment and accompanying remarks, Paper No. 8, has been entered. The specification and claims 5 and 6 have been amended. Claim 19 has been canceled and claims 28-30 have been added as requested. Presently, claims 1-18 and 20-30 remain pending in the present application. Applicant's amendments and accompanying remarks have been carefully considered, however, despite this advance the amendments are not found to patently distinguish the claims over the prior art and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

2. The rejection of claims 5-19 and 21-23 rejected under 102 (e) as being anticipated by Bisbis et al., US 5,919,539 or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bisbis et al is withdrawn. Applicant invokes 35 U.S.C. 103(c).

### ***Claim Rejections - 35 USC § 112***

3 Claims 1-18 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claims 1,5 and 6 recite physical properties of a polyethylene plexifilamentary strand and non-woven made therefrom (i.e., surface area, crush value, Frazier Permeability, hydrostatic head and Gurley Hill Porosity). Ex parte Slob, 157 USPQ 172, states the following with regard to an article claimed by defining property values:

Claims merely setting forth physical characteristics desired in article, and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in future and which would impart desired characteristics, thus, expression "a liquefiable substance having a liquefaction temperature from 400°C. to about 300°C. and being compatible with the

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ingredients in the powdered detergent composition” is too broad and indefinite since it purports to cover everything which will perform the desired functions regardless of its composition, and in effect, recites compositions by what it is desired that they do rather than what they are; expression also is too broad since it appears to read upon materials that could not possibly be used to accomplish purposes intended.

Applicant argues that the Examiner’s analysis of the claims is entirely analogous to the practice of deriving an obviousness rejection directly from case, rather than from the inquiry mandated by the statute, which practice was admonished in *In re Ochiai*, 71 F. 3d 1565, 37 USPQ2d 1127, 1132 (Fed. Cir. 1995) (Applicant’s response, Page 4). The Applicant further asserts that 112 2<sup>nd</sup> paragraph does not require that the claims define “the invention” but rather that the claims define the “subject matter”, which the Applicant regards as his invention. In response, it is the position of the Examiner that the recitation of physical properties of a known article does not constitute “defined subject matter”. The Examiner is not arguing the indefiniteness of a polyethylene plexifilimentary fiber, but rather the lack of definiteness with regard to how the Applicant provides a polyethylene plexifilimentary fiber having the said physical properties. In other words, because the Applicant has failed to set forth the patentably distinguishable features which would produce said physical properties it is the position of the Examiner that without such limitations said claims are indefinite under Ex Parte Slob.

Thus, claims 1-18 are indefinite for reciting only the desired physical properties of the plexi-filamentary fibers and the non-woven thereof, rather than setting forth structural and/or chemical limitations, which would provide said plexifilamentary properties. Stated another way, the claims are indefinite for only claiming the end results Applicant achieved instead the contribution to the art that achieved the goals. Claims 21-27 are further rejected for their dependency on claims 5 and 7.

***Claim Rejections - 35 USC § 102***

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4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 5, 26, and 27 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Lim et al., US 5,290,628.

Applicant has amended claim 5 to include the limitation of “unitary fibrous” and argues that Lim et al., teaches a composite sheet, whereas as the Applicant’s recite a non-woven unitary fibrous sheet. This argument is not found persuasive on the ground that the Applicants open claim language of comprising does not preclude the Lim et al., reference from being relied upon. Specifically, Lim et al., teaches using a lightly consolidated or unconsolidated flash-spun plexi-filamentary film-fibril web followed with hydraulically needling of staple fibers (Column 3, 40-45). Thus, it is the position of the Examiner that Lim et al., does teach a “unitary fibrous” sheet as one of the starting materials in the composite plexifilamentary sheet. Further, the consolidating renders the sheet “unitary”.

6. Claim 6 stands rejected under 35 U.S.C. 102(e) as being anticipated by Lim et al., US 6,034,008.

The Applicant argues that Lim et al., ‘008 does not teach the desired combination of hydrostatic head and Gurley Hill Porosity properties. This argument is not found persuasive on the grounds that Lim et al., teaches, though not in the claimed combination, that these properties can be obtained. In addition, it is the position of the Examiner that since the Lim et al., article meets the chemical and structural limitations of the instantly claimed invention said combination of hydrostatic head and Gurley Hill Porosity properties are inherent to the Lim et al., article.

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This position is maintained since it has been held that products having identical chemistry and structure cannot have mutually exclusive properties. *In re Spada* 15 USPQ 2d 655

7. Claims 20,25, and 26 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Steuber, US 3,169,899.

The Applicant argues that hot-air-bonding of Steuber would not produce the claimed sheet set forth in claim 20 and further asserts that the hot air bonding of Steuber is not drawn through the web (Applicant's response, Page 6). This argument is not found persuasive on the grounds that the final product structure of Steuber is a bonded sheet. Presently, the method limitation of through-air-bonding is treated in accordance with MPEP 2113 and is only in so far as the contributions the method imparts on the final product. In the instant case, it is not apparent to the Examiner how the hot-air bonding of Steuber produces a structurally different product than that of the instant invention produced with through-air-bonding. In light of the lack of evidence or teachings in the record showing the chemical or structural differences the burden is shifted to Applicant to evidence the contrary.

***Claim Rejections - 35 USC § 102/103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1-18 stand rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over or Steuber, US 3,169,899.

The Applicant argues that Steuber does not teach plexifilamentary strands having the combination of surface area and crush value properties. In addition, the Applicant contends that the webs of Steuber have low resiliency, which would teach away from the claimed invention as

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set forth in claim 1 (Applicant's response, Page 5). Regarding the lack of teaching to the combination of surface area and crush value properties, the Examiner asserts that this is basis of an inherency argument. The reference does not have to teach said desired physical properties, but rather the chemical and structural features of the claimed article. As such, it is the position of the Examiner that since Steuber meets chemical and structural criteria with a fibrous non-woven sheet consisting of plexifilament material produced from polyhydrocarbons such as polyethylene or polypropylene, said physical properties must be inherent. In light of the lack of evidence or teachings in the record showing the chemical or structural differences the burden is upon the Applicant to evidence the contrary.

In response to the webs of Steuber having a low resiliency, the Examiner would like to point out that Applicant's recited claims do not provide for such a limitation. Accordingly, it is the position of the Examiner that if the non-woven articles of the instant invention have a low resiliency then such limitations should be set forth by the Applicant.

10. Alternatively, claims 1-18 stand rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Blades US 3,081,519.

With regard to the Blades reference, the Examiner maintains the same arguments as presented above with regard to Steuber. To reiterate, the patent issued to Blades discloses a novel process for producing plexi-filaments. Blades teaches that the strands may be knit or woven into fabrics of high strength or they may be beaten or chopped to produce fibrids. The polymers used to produce the plexifilament strands are preferably crystalline polyhydrocarbons (e.g., polyethylene, polypropylene). Thus, since the prior art meets the structural and chemical limitations of the instant invention, it is the position of the Examiner that the surface area and

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crush values must be inherent. In light of the lack of evidence or teachings in the record showing the chemical or structural differences the burden is upon the Applicant to evidence the contrary.

11. Claims 6-18 and 24-27, stand rejected under 102 (b) as being anticipated by Lim et al., US 5,290,628 or in the alternative, under 35 U.S.C. 103(a) as obvious over Lim et al., as applied to claim 5 above.

Applicant argues that Lim '628 does not teach the limitations of claim 5 and asserts that Lim '628 is directed to a composite comprising a flash spun layer and staple fiber layer. This is not found persuasive as set forth above in section 4. To reiterate, the Applicant's open claim language of comprising does not preclude the addition of a staple fiber layer to the lightly consolidated or unconsolidated flash-spun plexi-filamentary film-fibril (i.e., unitary) web of Lim '628. Thus, claim 5 is not patently distinguishable over Lim '628.

In response the Applicant's assertion that the rejection of claims 7-19 and 24-27 are improper since they ultimately depend from claim 5, which in the opinion of the Applicant, is patentable over the Lim '068 reference, the Examiner maintains that claim 5 is not patently distinguishable over the prior art of Lim '068 (Applicant's response, Page 9-10). As such, the Examiner maintains that claims 7-19 and 24-27 are properly rejected.

With regard to the Applicant's arguments that Lim '068 does not teach combination of the hydrostatic head and Gurley Hill Porosity of claim 6, as discussed above, it is the position of the Examiner that because the Lim '068 meets the chemical and structural limitations of the instant invention said desired combination of physical properties must be inherent (Applicant's response, Page 10). In light of the lack of evidence or teachings in the record showing the chemical or structural differences the burden is upon the Applicant to evidence the contrary.



With regard to the Applicant's argument that Lim '068 teaches a hydraulic needling process which would reduce or eliminate hydrostatic head of the sheet, the Examiner would like to point out that the Applicant has not set forth the process steps and/or limitations which provide for said physical properties. Without such process steps and/or limitations these claims as recited are not patently distinguishable over the prior art because the prior art anticipates all the chemistry and structure recited in the claim. *In re Spada* 15 USPQ 2d 655

12. Claims 28-30 are rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over or Shin et al., US 5147568.

The patent issued to Shin et al., teaches a improved process for flash-spinning plexifilamentary film-fibril strands (Abstract). The process includes spinning polyethylene, which has been dissolved into a hydrocarbon/co-solvent mixture comprising from 8 to 35 percent weight of polyethylene at a temperature ranging from 130° C to 300° C (Column 2, 55-65). Suitable hydrocarbons include pentane and suitable co-solvents include cyclopentane (Column 3, 15-51).

Shin et al., fails to explicitly teach forming a unitary non-woven sheet from said plexifilamentary strands, however, it is well known in the art that plexifilamentary fibers may be used in the manufacture of non-woven sheets (See other references made of record). Moreover, since the fibers are generally only utilized when employed in some further construction, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the use fiber of Shin et al., in conventional plexifilamentary non-woven constructions, motivated by the desire to make use of the particular characteristics of the disclosed filaments.

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With regard to the physical property limitations, although the prior art does not explicitly disclose a non-woven having the desired combination of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity values it is reasonable to presume that said property values are inherent to the plexifilamentary film-fibrils of Shin et al., and any subsequent non-woven formed therefrom. Support for said presumption is found in the use of like materials (i.e., polyethylene/pentane/cyclopentane) and the use of like processes (flash-spun plexi-filamentary filaments at a temperature ranging from 130° C to 300° C), which would result in the claimed property. The burden is upon the Applicant to prove otherwise *In re Fitzgerald* 205 USPQ 495

In addition, the presently claimed property values of crush value, surface area, Frazier Permeability, hydrostatic head, and Gurley Hill Porosity would obviously have been present once the Shin et al., product is provided. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977)

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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May 19, 2003

  
TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700